IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI
NORTHERN DIVISION

LATOYA BROWN; et al   PLAINTIFFS

v.   Civ. No. 3:17cv347-WHB-LRA

MADISON COUNTY, MISSISSIPPI; et al   DEFENDANTS

DEFENDANTS' REBUTTAL MEMORANDUM IN FURTHER SUPPORT
OF THEIR DAUBERT MOTION AND MOTION *IN LIMINE* TO
EXCLUDE THE TESTIMONY OF BRYAN RICCHETTI

Plaintiffs do not dispute that, before this Court can certify a class, they must provide "significant proof" of their claims as required by *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338 (2011). As 'significant proof' of intentional racial discrimination on the part of Sheriff Randy Tucker, Madison county's sole policymaker with regard to law enforcement, Plaintiffs rely solely upon "[t]he statistical imbalances identified in the data summarized by Dr. Guha, coupled with Dr. Ricchetti's rigorous statistical analysis and the extensive anecdotal and documentary evidence submitted by Plaintiffs." [Dkt. # 304 at 17]. Defendants have already moved to strike much of that "anecdotal and documentary evidence," consisting of hearsay newspaper articles and unsupported opinion in affidavits. [Dkt. # 274 and 285]. This brief explains that Dr. Ricchetti's analysis of roadblock locations proves nothing about discrimination against an actual Black persons or Drivers, and why Dr. Ricchetti's report is inadmissible under *Daubert*.[1]

I.   BECAUSE DR. RICCHETTI ONLY ANALYZED CORRELATION BETWEEN
       ROADBLOCKS AND PREDOMINANTLY-BLACK CENSUS TRACTS, NOT
       BLACK PERSONS OR BLACK DRIVERS, HIS ANALYSIS IS IRRELEVANT TO
       PLAINTIFFS' CLAIM.

Dr. Ricchetti now contends that his analysis "assess[es] whether the frequency of

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[1]   A separate brief explains why Dr. Guha's calculations should be excluded and are otherwise not significant proof.

roadblocks are more common in areas that have a higher share of Black residents after controlling for the relevant driving behavior of motorists." [Dkt. # 304-1 at 5]. Any correlation identified from this analysis may be relevant to whether the alleged roadblock policy disparately impacts predominantly-Black census tracts. It is wholly irrelevant to determining whether Sheriff Tucker intentionally targets Blacks or Black drivers. Plaintiffs admit the limited use of the analysis, explaining that it "provides statistical confirmation that the MCSD engages in policing practices that disproportionately impact Black neighborhoods[.]" [Dkt. # 303 at 8].[2] However, Plaintiffs have never alleged that discrimination against "Black neighborhoods" constitutes discrimination against Blacks or Black drivers. They certainly have not provided any authority that the correlation between traffic enforcement activities and neighborhoods is proof of intentional discrimination against Blacks or Black drivers, or that law enforcement presence in Black neighborhoods is somehow by itself unconstitutional.

Plaintiffs admit that Dr. Ricchetti's analysis is not probative of the question of discrimination against Black drivers, claiming instead that his "analysis concerns the selection of the roadblock *locations*, not selection of particular *motorists* for detention and interdiction." [Dkt. #304 at 15; *see also* Dkt. # 303 at 24]. The parties, therefore, agree that this analysis shows nothing about alleged discrimination against Black drivers. Plaintiffs' new focus on neighborhoods, rather than drivers, is a dramatic departure from the allegations made by the eight remaining Plaintiffs in the Complaint. [Dkt. # 1]. None alleged that roadblocks were in their neighborhood.[3] Some complained they were improperly stopped, but Plaintiffs have already admitted that Dr. Ricchetti

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[2]   Dr. Ricchetti states: "As I understand it, a central claim in this case is that <u>residents</u> of predominantly Black areas of Madison County claim that roadblocks and other policing activity disrupt their daily lives." (Ricchetti Rebuttal, ¶ 2) (emphasis added).

[3]   The only individual Plaintiff who attempted to allege injury because of roadblocks in his neighborhood was Marvin McField [Dkt. # 1 at ¶252], who was dismissed by this Court for lack of prosecution. [Dkt. # 242].

did not analyze drivers or stops. Thus, Dr. Ricchetti's analysis cannot be relevant to the individual

claims made by the remaining Plaintiffs, since none alleged that roadblocks targeted their

neighborhoods.

Moreover, plaintiffs assert no "claim for relief" regarding the placement of roadblocks

within the meaning of Fed. R. Civ. P. 8(a). Their "demand for relief," as required by Rule 8(a)(3),

is found in ¶ B of the prayer for relief. They ask this Court to declare unconstitutional Sheriff

Tucker's alleged "policy, practice, and/or custom of unreasonably searching and seizing persons,

homes, cars, and property in the absence of reasonable suspicion or probable cause and on the

basis of race." [Dkt. # 1 at 82]. Because Plaintiffs do not complain of any policy concerning the

locations of roadblocks, Dr. Ricchetti's opinions about their location are irrelevant and

inadmissible.

II.   DR. RICCHETTI ADMITS HIS DESCRIPTIVE ANALYSIS OF PATTERNS OF ROADBLOCK LOCATIONS ARE NOT PROOF OF RACIAL DISCRIMINATION.

Dr. Ricchetti describes Section 4.1 of his original report as "a descriptive overview of the

patterns and key variables" that is "distinct" from his "formal regression analysis" which is the

basis for his opinions. [Dkt. # 303 at 24-26]. Plaintiffs argue that his use of "46.2% as the

threshold for when a census tract should be considered Black" is an <u>intuitive</u> interpretation [*i.e.*,

non-scientific] of the Black population percentage in Madison County's twenty-one (21) census

tracts." [*Id.* at 24 (emphasis added)]. Intuition is not covered by Fed. R. Evid. 702.[4] *See Oddi v.*

Ford Motor Co., 234 F.3d 136 (3d Cir. 2000) (affirming the district court's exclusion of an expert

who based his opinion on "ipse dixit" and "his own intuition").   Dr. Ricchetti himself states "the

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[4]   Focusing on areas where minorities constitute real majorities is not arbitrary, as Plaintiffs claim. The Supreme Court ruled that it will only recognize a minority district under Section 2 of the Voting Rights Act of 1965, as amended, 52 U.S.C.A. § 10301, if minorities constitute a real majority of the district. *Bartlett v. Strickland*, 556 U.S. 1 (2009).

purpose of the data summary was not to perform a statistical analysis." [Dkt. # 304-1 at ¶ 45].

Thus, by Dr. Ricchetti's own admission, Section 4.1 offers no expert proof (much less significant

proof) of discriminatory intent and is irrelevant under Rules 401 and 403, and inadmissible under

Rule 702.

Regardless, if Section 4.1 was revised using a real-majority threshold for designating White

and Black census tracts (i.e., 50 % plus 1), rather than Dr. Ricchetti's arbitrary thresholds, the

results from this data are dramatically different, as shown by the below chart from Dr. Steward's

report.[5] [Dkt. # 267-14 at 42](annotated by Defendants).

Table 1: Madison County Population 2012-2017

Census Tracts	Average African-American Population Percentage	# of Roadblocks 2012-2017	% of Total County Population	Average Annual Population
28089030101	10.7%	29	7.4%	7310
28089030202	10.9%	7	4.8%	4800
28089030203	11.6%	8	3.1%	3031
28089030301	11.6%	32	5.5%	5488
28089030206	13.0%	169	1.9%	1882
28089030204	14.7%	32	4.1%	4026
28089030104	16.5%	15	2.8%	2794
28089030205	17.9%	13	2.5%	2462
28089030107	18.0%	163	2.7%	2675
28089030201	18.6%	75	8.2%	8125
28089030400	28.0%	261	14.4%	14330
Average of Census Tracts with Low African-American Population Percentage	17.6%	804	57.4%	56922
28089030105	46.2%	10	3.3%	3309
28089030106	47.6%	132	5.0%	4953
28089030302	49.3%	158	6.7%	6665
28089030700	58.4%	13	1.0%	993
28089030800	59.6%	21	2.2%	2148
28089030108	65.6%	36	5.3%	5287
28089030900	69.5%	264	6.2%	6121
28089030600	83.7%	275	3.6%	3532
28089031000	84.0%	63	2.0%	1935
28089030500	89.5%	228	7.4%	7309
Average of Census Tracts with High African-American Population Percentage	66.0%	1200	42.6%	42251

(annotation: 50% Real-Majority Threshold, with arrow pointing to the division between 28089030302 and 28089030700)

Source: Dr. Ricchetti, Ph.D. Production Data

Using the more logical real-majority threshold, the data confirm that more roadblocks are

located in majority-White census tracts rather than majority-Black census tracts, and that the total

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[5]   Dr. Ricchetti's arbitrary threshold actually designates some majority-White census tracts as "Black" census tracts.

population residing in those majority-White census far exceeds the total population in the majority-Black census tracts:

Real Majority	Total Roadblocks	Total Population
White	1,104	71,850
Black	900	27,325

In any event, Dr. Ricchetti's rebuttal report confirms that none of his conclusions depend on Section 4.1 [Dkt. # 304-1 at ¶46], and he characterizes his regression analysis contained in Section 4.2 of his original report as the "proper statistical test of the differences in roadblocks across census tracts[.]" [Dkt. # 304-1 at 6]. As we see below, however, Dr. Ricchetti's regression analysis is fundamentally flawed.

III.   DR. RICCHETTI'S REGRESSION ANALYSIS IS NOT SIGNIFICANT PROOF UNDER *WAL-MART*.

Plaintiffs' claims require proof of intentional discrimination.[6] Under *Wal-Mart*, to make the leap from individual to class claims Plaintiffs must provide significant proof that Sheriff Tucker operates under a general policy to intentionally discriminate against Blacks. 564 U.S. at 353.[7] The linchpin of the Plaintiffs' proof of discriminatory intent is Dr. Ricchetti's flawed regression analysis of roadblock locations in census tracts. Plaintiffs have now designated two new experts (Dr. Patricia Frontiera and Dr. Justin McCrary) who are, along with Dr. Ricchetti, tasked with resuscitating Dr. Ricchetti's terminally-flawed analysis.[8] Even if admitted, Dr. Ricchetti's regression analysis is not significant proof regarding certification of any class.

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[6]   Defendants' rebuttal brief regarding Dr. Guha more fully explains the difference between disparate impact (effect-based) claims and disparate treatment (intent-based) claims.

[7]   Plaintiffs' only statistical evidence is Dr. Ricchetti's roadblock analysis, which at best relates to the Roadblock Subclass. Plaintiffs have provided no statistical proof regarding the Targeting Class or the Pedestrian Subclass, which therefore rely exclusively on anecdotal evidence to satisfy *Wal-Mart*'s significant proof requirement.

[8]   Dr. Frontiera's and Dr. McCrary's reports were submitted late, and are not proper rebuttal, for the reasons set forth in Defendants' forthcoming Motions to Strike.

A. No case has admitted statistical analysis to show that a traffic enforcement practice discriminates against Black *residents*.

Plaintiffs attempt to spin Dr. Ricchetti's roadblock analysis as well-accepted in order to satisfy Rule 702(c) and (d). Dr. Ricchetti and Dr. McCrary claim that Dr. Ricchetti's "methodology" has been used in academic research and courts,[9] though neither can cite a single paper or court opinion where an analysis of traffic enforcement has been used to prove discrimination against residents. In fact, Dr. Ricchetti testified at his deposition that he did not base his analysis on any actual research papers and did not know of any that used his actual statistical model. [Dkt. # 270-2, Ricchetti Tr. 46:12-14; 56:19-24]. Plaintiffs designate Dr. McCrary as an "expert on academic literature concerning statistical analysis of racial discrimination" in further support of Dr. Ricchetti. [Dkt. # 303 at 8]. Defendants identify nothing in Rule 702 that permits Dr. Ricchetti to rely on another expert to identify the "academic literature" he relied on for his analysis. Regardless, Dr. McCrary is not much of a lifeline since he too cannot identify a single peer-reviewed paper or case that uses this roadblock analysis to establish discrimination against residents.[10] He says many things such as "analogous", "similar", "this type of model", "same general type", "same type", and "general methodology" in promoting Dr. Ricchetti's analysis. None of that means "identical."

Both Dr. Ricchetti and Dr. McCrary attempt to hitch Dr. Ricchetti's analysis here to Dr. Fagan's analysis from *Floyd v. City of New York*, 861 F.Supp.2d 274 (2012). Yet, their discussions of *Floyd* never say that Dr. Ricchetti's analysis is the same as that in *Floyd*. They cannot do so because *Floyd* did not involve roadblocks and, moreover, dealt with New York's unique stop, frisk, and question policy. *Id.* at 280-81. While the racial makeup of pedestrians in *Floyd* may be

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[9]   "Methodology" presumably refers to regression analysis.

[10]   *See* Ex. 1, Dr. Steward Report, July 23, 2018 at ¶¶ 11 and 12.

proportionately related to the makeup of residents, this is not true for the inherently-transient driving population explained in *Chavez v. Illinois State Police,* 251 F.3d 612 (7th Cir. 2001).[11] Most importantly, the analysis in *Floyd* was used to prove discrimination against pedestrians, not residents. *See Ex. 1*, Dr. Steward Rep., at ¶12. Plaintiffs do not even pretend that Dr. Ricchetti's analysis proves discrimination against Black drivers.[12]

Indeed, if Dr. Ricchetti relied on Dr. Fagan's work or *Floyd*, that is a new development since he never referenced either in his original report or deposition. The obvious conclusion from Dr. Ricchetti's deposition and the 114-pages of reporting from Dr. Ricchetti and Dr. McCrary is that the analysis here was constructed ad hoc and has never been used in any academic research or admitted in court.

B. Dr. Ricchetti's regression analysis of census tract fails to identify Black neighborhoods.

Plaintiffs argue that the percentage of Black residents in a census tract is relevant to roadblock locations because they claim that "MCSD disproportionately establishes roadblocks in particular residential neighborhoods." [Dkt. # 303 at 29] (emphasis added). This argument is specious. Census tracts are not "particular residential neighborhoods." As explained by Dr. Steward (and confirmed by Dr. Ricchetti in his deposition) census tracts are often large areas geographically, with various and different racial demographics in the same census tracts. [Dkt. 267-16 at ¶21]. Further, Dr. Ricchetti makes no attempt to define "neighborhood." Dr. Ricchetti

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[11]   Neither Dr. Ricchetti nor Dr. McCrary cite any studies or articles supporting a causal relationship between residential racial demographics and roadblock locations. Instead, the studies they cite deal with matters (like voting and stop and frisks) where it is conceivable there may be a strong relationship between residential data and the issue in question.

[12]   As in *Chavez*, many drivers in Madison County (which adjoins Hinds, Rankin, Yazoo, Attala, and Leake Counties) are not even residents of Madison County. Dr. Ricchetti, by his own admission, does not take into account commuter routes that traverse numerous census tracts (and counties) that vary in their racial demographics.

merely assumes that all census tracts are racially homogeneous throughout, an assumption that is just wrong, as shown by the map in Dr. Steward's report. [Dkt. # 267-16 at 44]. Because Dr. Ricchetti does not know which neighborhoods are Black and which are White, he cannot establish a correlation between roadblocks and Black neighborhoods. Census tracts are not small enough to be coterminous with Black neighborhoods.[13]

Even if roadblock locations could be correlated with Black neighborhoods, that would not prove discriminatory intent by Sheriff Tucker. The testimony of MCSD officers is consistent that the goal of roadblocks is traffic control, with a heavy emphasis on DUI control. [Dkt. # 270-7 at ¶4]. MCSD therefore specifically targets areas that are close to bars and local nightspots. *Id.* at ¶7. Further, it is undisputed that most of these areas are centered in the Canton area, which is majority-Black, and the Ridgeland area, which also contains pockets that are heavily Black. *Id.* at ¶ 11. It is not at all surprising that Dr. Ricchetti found a small correlation between the racial makeup of the census tract and the location of roadblocks, given that most bars open late at night are located in or close to census tracts with large Black population. As Dr. Ricchetti himself admits, DUI arrests are the dominant factor correlated to the location of roadblocks. [Dkt. # 270-2, Ricchetti Tr.: 57:4-19; 225:10-14].

Plaintiffs' attempt to distinguish *United States v. Johnson*, 122 F. Supp. 3d 272 (M.D.N.C. 2015), is not persuasive. In *Johnson*, the Justice Department was trying to show that Hispanic drivers were being targeted by the local sheriff at roadblocks. *Id.* at 281-82. The Justice Department tried to establish a baseline by putting observers on the roads in an attempt to determine the racial makeup of drivers on certain roads. *Id.* at 329-38. The court found this

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[13]   Dr. Ricchetti did not use census block data, which is much more precise and specific than census tract data since blocks are much smaller than tracts. [Dkt. # 267 at ¶¶45-46].

methodology was the right approach, but the data gathered by the observers was too unreliable. *Id.* Here, Plaintiffs and Dr. Ricchetti never even attempt to determine the racial makeup of drivers on roads where roadblocks are located, because they claim that they are not trying to prove racial discrimination against Black drivers.

Dr. Ricchetti denies that his report attempts to use census tracts as a proxy for Black residents or drivers. [Dkt. #302-2 at ¶¶16 and 18]. Plaintiffs admit that Dr. Ricchetti does not address which motorists are selected for "detention and interdiction" at roadblocks. [Dkt. # 304 at 23]. Therefore, Dr. Ricchetti's regression analysis offers no relevant proof as to alleged intentional racial discrimination by Sheriff Tucker against Black drivers at roadblocks, and thus is irrelevant under Federal Rules of Evidence 401 and 403 to the claims Plaintiffs have actually asserted.

C. The admitted errors make Dr. Ricchetti's GIS and regression analysis unreliable under Fed. R. Evid. 702 and *Daubert*.

Defendants previously explained that Dr. Ricchetti's analysis is fundamentally flawed because MCSD does not maintain records designed for reliable geographic analysis. The records Dr. Ricchetti claims he geocoded provide only nearby intersection information rather than actual roadblock locations. It is undisputed that this information is incomplete and limits the ability to accurately geocode, which must be done prior to any effort to assign roadblock locations to census tracts.[14] Plaintiffs criticize Defendants for "attempting to overcomplicate what was a straightforward process and a *minor* part of Dr. Ricchetti's expert analysis." [Dkt. # 303 at 7

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[14]   As Defendants' opening brief explains, the problem with the geocoding is not only assigning the roadblocks to the proper census tract, a problem that is best illustrated by the roadblocks that straddle census tracts. There is also the initial, fundamental problem of ascertaining where the roadblock actually occurred because MCSD personnel only record roadblock locations using nearby major intersection addresses. This latter issue is inherent with the data and must be resolved before reliably assigning locations to census tracts. Plaintiffs attempt to buttress Dr. Ricchetti's geocoding with Dr. Frontiera, who was designated late and thus should be stricken as an expert. Even if her report is considered, however, Dr. Frontiera explicitly admits this is a data problem that exists here [¶¶15; 20 and 28] but argues imprecise generalized geocoding is okay because it is acceptable in academic research related vehicle crash investigations in Hawaii [*id*. n.14] and cancer registries [*id*. n.18]. [Dkt. # 302-3].

(emphasis added)]. This characterization best illustrates Plaintiffs' nonchalance on the question

of roadblock locations. Plaintiffs made roadblock locations central to *all* class claims, because

they offer no statistical proof other than roadblock locations. Plaintiffs claim that MCSD

intentionally targets predominantly-Black census tracts with roadblocks.

Before there can be any reliable analysis of roadblock locations, you must first reliably

determine where the roadblocks were located, and that never happened here for the reasons

previously explained. *See* [*Ex. 1*, Dr. Steward Rep. at ¶ 6; Dkt. # 271 at 11-13]. It has been clear

since Dr. Ricchetti's initial report, and confirmed at his deposition, that no reliable determination

of roadblock location for geocoding purposes was made prior to conducting his regression

analysis.[15] His supplemental report, again, confirms this. Likewise, Dr. Frontiera, who the

Plaintiffs brought in now to defend and bolster Dr. Ricchetti's GIS analysis, further confirms that

no reliable determination has been made, or ever could be made, of roadblock locations using these

records.[16] She simply claims that it is close enough for these purposes.[17]

Plaintiffs want to whitewash the entire process of ascertaining the location of roadblocks

and talk about the results of Dr. Ricchetti's regression. Plaintiffs cannot establish that Dr. Ricchetti

magically   converted   coarse,   generalized   location   information   into   precise   geographic

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[15]   At his deposition, it was clear that Dr. Ricchetti did not geocode the data. [Dkt. # 270-2, Ricchetti Tr.: 163:5-6; 168:1-3]. Plaintiffs have now produced two reports from Dr. Ricchetti and three additional expert reports. None of these new experts, including Plaintiffs' geographer, Dr. Frontiera, claim they conducted the geocoding analysis that is attributed to Dr. Ricchetti. Dr. Ricchetti himself should know if the geocoding upon which he relied is reliable. He does not.

[16]   Dr. Frontiera explains several times that intersections can be geocoded. However, that is obviously not the question here. The question is whether Dr. Ricchetti accurately geocoded the location of the roadblocks using only information about nearby intersections of which 93.4% did, as explained by Mr. Funderburk. [Dkt. #267-23 at ¶45].

[17]   Plaintiffs blame the data issues on Defendants to defend Dr. Ricchetti. [Dkt. # 303 at 17]. Plaintiffs want to convert MCSD data maintained for one purpose into something entirely different. There is no law that law enforcement is required to maintain records in a manner to enable the analysis that the Plaintiffs attempted to do here.

coordinates.[18]   In fact, Dr. Frontiera's report gives up the ghost by acknowledging that there are

"in fact ostensible errors in the underlying data" and that the information is indeed "incomplete."

[Dkt. # 302-3 at ¶15 and ¶20].

Plaintiffs ask the Court to disregard the eleven sets of examples the Mr. Funderburk

identified in his report, which involve 22 roadblock locations, dismissing them as de minimis.[19]

[Dkt. # 303 at 19-20].   Plaintiffs fail to note, however, that the 22 locations identified by in the

eleven examples from Mr. Funderburk comprise over 222 of the 2,004 total roadblocks analyzed

by Dr. Ricchetti.   Mr. Funderburk testified that he was confident that, had he met longer with

MCSD personnel, he could have found more errors.   [Ex. 2, Funderburk Tr.: 42:16-44:14].

Regardless, an error rate exceeding 11% along with all the other "measurement errors" (discussed

below) that Plaintiffs cite in *defense* of Dr. Ricchetti's analysis hardly supports its reliability.   [Ex.

2, Funderburk Tr.: 160:16-162:4]

The main refrain in Plaintiffs efforts to salvage Dr. Ricchetti's faulty analysis is that all

these errors are just part of "measurement error," which according to Plaintiffs is the tonic that

solves all statistical ills.   The repeated, overreliance on measurement error by Plaintiffs and their

experts to salvage the roadblock analysis shows just how superficial the analysis was.   Plaintiffs

cite measurement error in defense of Dr. Ricchetti's GIS analysis, benchmark, and regression

analysis.   From Dr. McCrary's report it appears that almost any problem with Dr. Ricchetti's faulty

GIS or regression analysis can be explained away using "basic" concepts that Defendants' experts

completely overlooked.   Per Dr. McCrary, any concerns that Dr. Ricchetti's reliance on census

tracts is faulty because it homogenizes the racial profile of large swaths of the county is just part

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18   [Dkt. # 267-21, Funderburk Rep. at ¶ 45].

19   Funderburk Rep. at ¶¶ 48(a)-(k). [Dkt. #267-21]

of measurement error and acceptable.[20]   [Dkt. # 302-4 at ¶32].   Likewise, he asserts that Defendants' concerns about assigning roadblocks to the wrong census tract also is simply "wash[ed]" away thanks to measurement error. [¶3.1.1]. According to Dr. McCrary, measurement error does not just resolve the concerns raised by Defendants, it might actually skew Dr. Ricchetti's analysis in favor of the Defendants.

All Plaintiffs' reliance on measurement error begs the question: what is the quantity of measurement error that they admit exists in Dr. Ricchetti's analysis? They do not say, of course. They certainly do not identify the maximum acceptable error. *See Ex. 1*, Dr. Steward Rep. July 23, 2018 at ¶ 4. They admit several measurement errors that are propagated throughout Dr. Ricchetti's data and analysis. They do not even attempt to argue that these errors are not compounding. Compounding or not, the admitted, unknown measurement error hardly satisfies reliability under Rule 702 and *Daubert*, and certainly not in conjunction with the address data issues that Dr. Frontiera admits exists. *See id.* at ¶11; Dkt. # 302-3 at ¶¶ 15, 20, and 28.

Plaintiffs ultimately seek to convince the Court that the errors they admit, and that are clearly propagated throughout Dr. Ricchetti's analysis, probably "wash[es] out" and, regardless, the Court should not worry about the dubious reliability of his analysis because there is the possibility that these errors favor Defendants. Plaintiffs cite no support for such a lenient application of reliability under Rule 702 and *Daubert*. Plaintiffs, as the proponents of the expert evidence to be provided by Dr. Ricchetti, bear the burden of showing that it is admissible. *See Mathis v. Exxon Corp.*, 302 F.3d 448, 459-60 (5th Cir. 2002); *Tamer v. Westbrook*, 174 F.3d 542, 547 (5th Cir. 1999) (superseded on other grounds) (citation omitted). They have failed.

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[20]   For example, Defendants have challenged Dr. Ricchetti's conclusion that areas in Madison County around and bordering the northern portion of the Ross Barnett Reservoir are Black neighborhoods. While census tract 309 is majority black, the areas close to the Reservoir are not.

CONCLUSION

Defendants respectfully request an order from this Court striking and excluding Dr.

Ricchetti's report and testimony.

Respectfully submitted this 23rd day of July, 2018.

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**MADISON COUNTY, MISSISSIPPI and
SHERIFF RANDALL C. TUCKER, IN
HIS OFFICIAL CAPACITY**

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CERTIFICATE OF SERVICE

I, T. Russell Nobile, hereby certify that I electronically filed the foregoing with the Clerk of Court using the CM/ECF system which will automatically send email notification of such filing to the following:

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EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI
NORTHERN DIVISION

LATOYA BROWN; LAWRENCE BLACKMON; HERBERT ANTHONY GREEN; KHADAFY MANNING; QUINNETTA MANNING; MARVIN MCFIELD; NICHOLAS SINGLETON; STEVEN SMITH; BESSIE THOMAS; And BETTY JEAN WILLIAMS TUCKER, Individually and on behalf of a class of All others similarly situated,	)))))))))))	
Plaintiffs,	))	Civil Action No. 3:17-cv-347WHB-LRA
v.	))	
MADISON COUNTY, MISSISSIPPI; SHERIFF RANDALL S. TUCKER, in his Official capacity; and MADISON COUNTY SHERIFF'S DEPUTIES JOHN DOES #1 through #6, in their Individual capacities,	)))))))	
Defendants.	)	

Dwight D. Steward, Ph.D.
Rebuttal Expert Report

July 23, 2018

Introduction

1.   My name is Dwight Steward, Ph.D. and I am an economist and statistician and have been retained to perform an analysis in this lawsuit. As an economist and statistician, I have provided statistical and economic consultation and reports on racial discrimination issues in areas including police racial profiling, police use of force, employment, and financial lending. In this report, I provide a rebuttal to the Rebuttal Expert Report of Plaintiff's statistical expert, Dr. Bryan Ricchetti. My CV and resume are attached to my May 8, 2018 reports in this matter.

2.   In short, it is my opinion that Dr. Ricchetti's analysis remains severely flawed and unreliable. As will be discussed below, in contrast to Dr. Ricchetti's assertions his errors are critical data mistakes and not measurement error that can be assumed away as unimportant. Additionally, Dr. Ricchetti's rebuttal analysis further illustrates the flawed reasoning that underlie the statistical analyses that he performs. Finally, even taking at face value as correct, Dr. Ricchetti's alleged disparate impact is de-minimis under even the most liberal analysis assumptions.

Dr. Ricchetti's errors are critical data mistakes and not measurement error

3.   In Dr. Ricchetti's July 2, 2018 rebuttal report, he argues that the numerous data errors and inconsistencies that were discussed in my initial report and the report of Mr. William Funderburk, can be lumped together and classified as 'measurement error' and is unimportant to his analyses in this case. The measurement error that Dr. Ricchetti is referring to in his rebuttal analysis is a generic statistical

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concept that is generally defined as "the difference between a measured value of a quantity and its true value. In statistics, an error is not a "mistake".[1] In this specific case, Dr. Ricchetti's errors are not 'measurement error' but are instead flat out data mistakes. Dr. Ricchetti's errors cannot be assumed away as he is attempting to do with the academic arguments he presents in his rebuttal report.

4.   Specifically, Dr. Ricchetti indicates in his rebuttal report that he is attempting to analyze the claim that Madison County Sheriff Department's (MCSD) traffic roadblocks disrupt the lives of the residents in predominantly Black areas of Madison County. To be able to analyze this claim, it is indisputable that Dr. Ricchetti needs to know the actual location of the traffic roadblocks at issue as well as the race of the individuals who are potentially inconvenienced by the traffic roadblocks. Neither of these crucial factors can be reliably determined from the data that Dr. Ricchetti has cobbled together for his analysis. Further, there is no way to determine how far Dr. Ricchetti's data is from being correct.

5.   Dr. Ricchetti was only able to determine the exact geographical location of the traffic roadblocks in approximately 6.6% percent of the instances. Dr. Ricchetti relies on data assumptions generated by his computer geocoding software programs and general location descriptions in the other 93.4% of data instances. While producing his report, Dr. Ricchetti was not fully aware of how his computer software program made its underlying traffic roadblock location assumptions.[2][3]   In nearly all

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[1] An Introduction to Error Analysis, Taylor (1997), page 3
http://faculty.kfupm.edu.sa/PHYS/aanaqvi/Taylor-An%20Introduction%20to%20Error%20Analysis.pdf

[2] See April 6, 2018 Deposition Testimony Transcript of Bryan Ricchetti, Ph.D., Pg. 176 Ln. 10-25.

2

instances, the data that Dr. Ricchetti assembled simply does not provide a reliable geographical location of where the MCSD traffic roadblocks at issue in this case actually occurred.

6.   Clearly, if Dr. Ricchetti does not know where the traffic roadblocks actually occurred, he cannot reliably determine which Madison County citizens were actually impacted by traffic roadblocks. These data mistakes are compounded by the fact that many of the Madison County roads in his data span multiple, demographically diverse U.S. Census tracts. The supplemental ex-post analysis and theoretical discussion of statistical measurement error offered by Dr. Ricchetti and the Plaintiffs' rebuttal expert Professor Justin McCrary do not, and cannot, address these fundamental data problems contained in Dr. Ricchetti's analysis. The MCSD traffic roadblock data simply cannot be reliably used in the manner that Dr. Ricchetti is attempting to do in his analyses.

Dr. Ricchetti's statistical analyses are based on flawed reasoning

7.   In the Plaintiffs' rebuttal reports, Dr. Ricchetti and Professor McCrary, who is a Professor of Law at Columbia University, attempt to provide general references and studies in ex-post support of Dr. Ricchetti's statistical models. The studies that Dr. Ricchetti and Professor McCrary discuss were not actually relied upon by Dr. Ricchetti in the construction of his model. Dr. Ricchetti, who is an Antitrust Economist with no prior experience with police racial profiling cases, testified that he did not rely on any

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[3] See May 8, 2018 Rebuttal Expert Report of Dr. Dwight Steward, Pg. 13-14.

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professional literature to construct his model and that he was not aware of any study that actually used the statistical models that he developed for this case.[4]

8.   Dr. Ricchetti's and Professor McCrary's rebuttal discussions further illustrate the flawed fundamental premises on which Dr. Ricchetti's statistical analyses are based. As mentioned, Dr. Ricchetti indicates that he is attempting to analyze the claim that MCSD traffic roadblocks at issue in this case disrupt the lives of the residents in predominantly Black areas of Madison County. To analyze the claim that residents living in predominantly Black areas of Madison County are disproportionately impacted by MCSD traffic roadblocks, Dr. Ricchetti uses statistics techniques to assess if the frequency of traffic roadblocks is more common in areas that have a higher share of Black residents.

9.   Dr. Ricchetti's underlying reasoning and research question in his statistical analysis is flawed and simply wrong from the start. Clearly, vehicle traffic roadblocks are designed to stop and inspect drivers on the roads. A study of alleged race-based disparate impacts related to vehicle traffic roadblocks needs to analyze the racial distribution of the motoring population that passes through roadblocks, and not the race of the residents living in the large and varied geographical Census tract area where the traffic roadblock is located. In short, *even if every person living in a geographical Census tract are African-American, but the majority of people who are driving through the traffic roadblocks are White, the traffic roadblocks are going to*

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[4] See April 6, 2018 Deposition Transcript Testimony of Bryan Ricchetti, Ph.D, Pg. 56 Ln. 25 - Pg. 57 Ln. 1-3.

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EXHIBIT 1

disproportionately impact White drivers and not African-American residents.   Dr. Ricchetti's flawed reasoning completely misses this fundamental and crucial point.

10.   The fact that nearly all of the MCSD traffic roadblocks at issue in this case are DUI enforcement roadblocks that typically occurred after normal residential commuting hours further illustrates the critical flaws in Dr. Ricchetti's underlying reasoning.   Statistical inferences based on an inherently flawed premise, such as Dr. Ricchetti's, are unreliable regardless of the statistical techniques employed.

11.   In any event, none of the articles that Dr. Ricchetti and Professor McCrary provide as ex-post support are even remotely specific and applicable to the facts and police procedures and the analysis that Dr. Ricchetti performs in this case. The articles presented by Dr. Ricchetti and Professor McCrary in fact do not deal with vehicle traffic roadblocks at all. The hodgepodge of articles that they present as ex-post support discuss the general use of statistical regression models in the analysis of racial discrimination in areas such as mortgage lending, voting and test score measurement. The one ex-post analysis that Dr. Ricchetti presents that is related in some manner to police behavior is not applicable to the analysis of the traffic roadblocks in this case and does not actually utilize the specific statistical model that Dr. Ricchetti utilizes in this case. The analysis of Professor Jeffrey Fagan, which was performed in a foot-traffic police stop and frisk lawsuit in New York City, examined the number of police frisks at different police precincts and in different neighborhoods throughout New York City. The Fagan analysis, which did not study vehicle traffic roadblocks, provides no support for

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EXHIBIT 1

the methodology or specific factors that Dr. Ricchetti chose to include in the statistical models in his report.

12.   DUI traffic roadblocks are clearly different from foot-traffic police frisks of neighborhood residents. In the case of foot-traffic police frisks, it is reasonable to expect that police officers' decisions to frisk will impact the residents living in the vicinity of the police precincts. Likewise, it is reasonable to expect that DUI traffic roadblocks, which stop vehicle traffic, will impact the motoring public passing through the DUI roadblocks. Professor Fagan's analysis is clear on this point; Professor Fagan states in his report, "a valid benchmark requires estimates of the supply of individuals of each racial or ethnic group who are engaged in the targeted behaviors and who are available to the police as potential targets for the exercise of their stop authority". For the DUI roadblocks at issue in this case, "the appropriate supply of individuals" should be based on the racial distribution of the driving population that is traveling through the MCSD traffic roadblocks and not the race of the individuals living in the large, diverse geographical Census area in which the traffic roadblock is located.

Dr. Ricchetti's alleged disparate impact is de-minimis

13.   Dr. Ricchetti's alleged disparate impact is de-minimis even under the most liberal analysis assumptions. Assuming for the sake of argument that Dr. Ricchetti's underlying data and model is 100% correct, his statistical model predicts that African-Americans living in high population African American population Census tracts will only experience about 3.8% more DUI traffic roadblocks per year on average than African-Americans living in Census tracts that are not as populated by

6

EXHIBIT 1

African-Americans.[5]   Dr. Ricchetti's finding also assumes that none of the factors such as traffic patterns, geographical size of Census tract, location of restaurants and bars, or any of the errors and omissions discussed in my initial report matter whatsoever. Even if his data and model were correct, which it is not, Dr. Ricchetti's alleged racial disparate impact is of no practical significance.

14.   Accounting for any number of the factors that Dr. Ricchetti fails to account for, such as traffic patterns, location of restaurants and bars, geographical size of Census tracts, or any of errors and omissions discussed in my initial report, would likely cause his de-minimis findings to disappear. Regardless, even taken at face value, Dr. Ricchetti's findings of a 3.8% difference is nowhere near the level that has been deemed significance in police racial profiling research.[6]

Conclusion

15.   In sum, it is my opinion that Dr. Ricchetti's analysis remains severely flawed and unreliable. As was discussed above, in contrast to Dr. Ricchetti's assertions, his errors are critical data mistakes and not measurement error that can be assumed away as unimportant. Additionally, Dr. Ricchetti's rebuttal analysis further illustrates the flawed reasoning that underlie the statistical analyses that he performs. Finally, even taking at face value as correct, Dr. Ricchetti's alleged disparate impact is de-minimis

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[5] See July 2, 2018 Expert Report of Bryan Ricchetti, Ph.D., Pg. 9 and March 13, 2018 Expert Report of Bryan Ricchetti, Ph.D., Pg. 24.

[6] Baumgartner, Frank, Derek Epp, Kelsey Shoub, and Bayard Love (2016)
https://www.unc.edu/~fbaum/articles/PGI-2016-Targeting.pdf.
Baumgartner, Frank, Bryan Jones, Julio Zaconet, Colin Wilson, and Arvind Krishnamurthy (2015)
https://www.unc.edu/~fbaum/TrafficStops/Baumgartner-TexasDPS-Nov2015.pdf

EXHIBIT 1

under even the most liberal analysis assumptions.

Dwight D. Steward

EXHIBIT 2

Page 1

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 1                        W. Funderburk
                UNITED STATES DISTRICT COURT
 2
           FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
 3
                      NORTHERN DIVISION
 4
     ----------------------------------------
 5
     LATOYA BROWN; LAWRENCE BLACKMON;
 6   HERBERT ANTHONY GREEN;
     KHADAFY MANNING; QUINNETTA MANNING;
 7   MARVIN McFIELD; NICHOLAS SINGLETON;
     STEVEN SMITH; BESSIE THOMAS; and
 8   BETTY JEAN WILLIAMS TUCKER,
     individually and on behalf of a
 9   class of all others similarly
     situated,
10
             Plaintiffs,
11                                    Civil Action No.
     vs.
12                               3:17-CV-00347-WHB-LRA
     MADISON COUNTY, MISSISSIPPI;
13   SHERIFF RANDALL S. TUCKER, in his
     official capacity; and MADISON
14   COUNTY SHERIFF'S DEPUTIES JOHN
     DOES #1 THROUGH #6, in their
15   individual capacities,

16           Defendants.

17   -----------------------------------------

18

19           DEPOSITION OF WILLIAM FUNDERBURK

20                 Gulfport, Mississippi

21                Wednesday, June 20, 2018

22

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24   Reported by: DEBRA AMOS ISBELL, CCR,RDR,CRR

25   Job No: 143370
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EXHIBIT 2

Page 2

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1              W. Funderburk
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              June 20, 2018
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              8:07 a.m.
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11
12        Deposition of WILLIAM FUNDERBURK, held at
13   the offices of Wise Carter Child & Caraway, PA,
14   Attorneys at Law, 2510 14th Street, Suite 1125,
15   Gulfport, Mississippi, before Debra Amos Isbell,
16   a Registered Professional Reporter, Registered
17   Diplomate Reporter, Certified Realtime Reporter,
18   and Mississippi Certified Court Reporter.
19
20
21
22
23
24
25
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Page 3

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1              W. Funderburk
2            A P P E A R A N C E S
3    SIMPSON THACHER & BARTLETT
4    Attorneys for Plaintiffs
5    425 Lexington Avenue
6    New York, NY 10017
7    BY: ISAAC RETHY, ESQ.
8
9
10   ACLU OF MISSISSIPPI
11   Attorneys for Plaintiffs
12   Post Office Box 2242
13   Jackson, MS 39225
14   BY: JOSHUA TOM, ESQ.  (VIA TELEPHONE)
15
16
17
18   WISE CARTER CHILD & CARAWAY
19   Attorneys for Defendants
20   2510 14th Street
21   Gulfport, MS 39501
22   BY:  T. RUSSELL NOBILE, ESQ.
23
24
25
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Page 4

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1              W. Funderburk
2    APPEARANCES (Continued)
3
4    CURRIE JOHNSON & MYERS
5    Attorneys for Defendants
6    1044 River Oaks Drive
7    P.O. Box 750
8    Jackson, MS 39205
9    BY:  REBECCA COWAN, ESQ.
10
11
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Page 5

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1              W. Funderburk
2         WILLIAM FUNDERBURK
3      was sworn and testified as follows:
4       THE WITNESS:  I do.
5            EXAMINATION
6    BY MR. RETHY:
7     Q.   Good morning.
8     A.   Good morning.
9     Q.   My name is Isaac Rethy.  I'm an attorney
10   with a law firm called Simpson, Thacher & Bartlett,
11   one of the firms representing the plaintiffs in this
12   case, Brown, against Madison County.  Could you state
13   your name for the record?
14    A.   William Richard Funderburk.
15    Q.   And what's your home address?
16    A.   22103 Episcopal School Road, Long Beach,
17   Mississippi.
18    Q.   Long Beach is in this basic area; is that
19   right?
20    A.   Yes, sir.
21    Q.   And how long have you lived there?
22    A.   Approximately two and a half years.
23    Q.   Have you ever lived in Madison County,
24   Mississippi?
25    A.   No, sir.
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2 (Pages 2 to 5)

EXHIBIT 2

Page 42

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 1              W. Funderburk
 2     Q.   Yeah.
 3     A.   Did I write it?
 4     Q.   Yeah.
 5     A.   Yes, sir.
 6     Q.   So let's go to paragraph 46.  And so this
 7  paragraph states:  "I interviewed Dr. Rylon Thompson
 8  for purposes of my review."
 9         And this is referring to the interview we
10  discussed already; is that right?
11     A.   Yes, sir.
12     Q.   Did you take any notes during that
13  interview?
14     A.   No, sir, I did not.  I typed that
15  information up realtime.
16     Q.   I'm sorry.  What information did you type
17  up?
18     A.   The information that I asked Deputy Thompson
19  that's found in the exhibits listed below.  So to sort
20  of describe the process, I had ArcGIS pulled up on a
21  large screen and we sat around the conference table
22  and just quickly visited a few points.  And the text
23  that you see I typed up realtime in the report.
24     Q.   So going to paragraph 48 it says:  "What
25  follows is an incomplete list of geocoding and census
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 1              W. Funderburk
 2  tract assignment errors that I have identified in my
 3  review and discussions.  The exhibits referenced below
 4  are attached to my report."
 5         So could you explain what you mean by an
 6  incomplete list?
 7     A.   So these were just a few examples.  You
 8  know, I could have picked apart the entire dataset,
 9  but it would have taken me much longer.  I could have
10  gone through each point with Deputy Thompson.  So this
11  is essentially a subset.
12     Q.   Did you select the subset?
13     A.   I navigated -- I started in one corner of
14  the Madison County map and just went to a couple of
15  points and asked him about it.  So I guess in terms of
16  if I selected the subset, yeah.
17         MR. NOBILE:  I'll just object.  Objection to
18  form.
19     Q.   You say you went to a couple of points and
20  asked Deputy Thompson about those points?
21     A.   Yes.
22     Q.   Did you ask Deputy Thompson about any points
23  that didn't make it into this report?
24     A.   Yeah, I did.  You know, I could have had 80
25  pages of points here, you know.  80, I'm using 80 as
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 1              W. Funderburk
 2  an arbitrary number.  But yes, some of them didn't
 3  make the cut for the report just because of the amount
 4  of time and context.  So we discussed more than just
 5  these points in the report, yes.
 6     Q.   But you didn't -- you didn't take any notes
 7  regarding those other points?
 8     A.   No, sir.  I believe I did not, no.  I typed
 9  up the ones here realtime.  The verbal discussion
10  amongst the other points just kept reiterating how
11  unreliable the dataset was and how unreliable the
12  methodology for geocoding was.  So at some point, you
13  know, you've belabored the point of how incorrect this
14  dataset is.
15     Q.   So when you're referring to the dataset,
16  what specifically are you referring to?
17     A.   The compiled unique roadblock datasets and
18  other datasets from Dr. Ricchetti's report.  I believe
19  there were three:  the CAD file, the unlisted, and the
20  handwritten notes.  And I'm pretty sure that's in the
21  report as well.  I know it is in the report.
22     Q.   Right.  And so the CAD file, do you
23  understand what that is?
24     A.   I know that CAD is an acronym for
25  computer-aided dispatch.
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Page 45

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 1              W. Funderburk
 2     Q.   Do you understand that the CAD data is data
 3  created by the Madison County Sheriff's Department?
 4     A.   Yeah, yeah.
 5     Q.   And so you're saying that the Madison County
 6  Sheriff's Department's data is unreliable?
 7     A.   No, I'm not necessarily saying that.
 8         MR. NOBILE:  Objection.
 9     Q.   You said earlier that the dataset was
10  unreliable; is that right?  Would you prefer to
11  describe it some other way?
12         MR. NOBILE:  Now, just to be clear, he's
13  proffered here as a geographer, not as a law
14  enforcement expert.  So objection to the extent that
15  it's an overly broad and vague question.
16     A.   Could you be a little bit more specific,
17  please?
18     Q.   So the CAD data is a dataset that was used
19  in the course of the geocoding involved in
20  Dr. Ricchetti's report; is that fair?
21     A.   That was listed in Dr. Ricchetti's report,
22  yes, sir.
23     Q.   And would you consider the CAD data to be
24  reliable data?
25     A.   For what purposes?  Reliable -- it's a
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12 (Pages 42 to 45)

EXHIBIT 2

Page 158

1   W. Funderburk
2   A.   I'd hate to speculate on that without
3 looking at the datasets. So I'd have to do that
4 before I gave an answer.
5   Q.   So look at Exhibit 1 to your report. It's
6 on page 36, page 36 of the header. So if you look at
7 the blue X and then look -- and see there's a geocoded
8 location, it's further on Harbor Drive slightly, sort
9 of towards the other, towards Ramp Road. It's not one
10 of the ones on Lake Harbor. It's on Harbor.
11   MR. NOBILE: Are you talking about point 159
12 maybe?
13   MR. RETHY: Yes, I am.
14   MR. NOBILE: The one that's furthest north,
15 I think it looks like?
16   MR. RETHY: Furthest, whatever direction.
17   MR. NOBILE: Yeah.
18   A.   There's a compass here. It is north.
19 Point 159, yes, sir.
20   Q.   And so the point 159 is one of
21 Dr. Ricchetti's geocoded locations; correct?
22   A.   This is correct. Yes, sir.
23   Q.   And then the blue X is the ground truth
24 location marked by Deputy Thompson; right?
25   A.   That is correct.

Page 159

1   W. Funderburk
2   Q.   And both of those are in the same census
3 tract; is that right?
4   A.   Let me -- you know, I can't really attest to
5 where the X would fall in the census tract because
6 it's a mark on paper, not a spatial data joined with
7 another piece of spatial data.
8   MR. NOBILE: So you're asking, just to be
9 clear, you're asking if point 159 and the blue X are
10 in the same census tract?
11   MR. RETHY: Correct.
12   A.   And so they appear to be in the same census
13 tract from this image.
14   Q.   And so in an analysis focused on assigning
15 locations to census tracts, the difference for this
16 specific point between that point and the X, that
17 wouldn't impact the analysis; right?
18   MR. NOBILE: Objection.
19   A.   The difference in location of point 159 and
20 where the X is?
21   Q.   Correct.
22   A.   Well, if that was the only geocoded point,
23 no. But in this case there's two geocoded points that
24 should be a singular point where the X is. 159 and 18
25 are representative of where the blue X is whereas the

Page 160

1   W. Funderburk
2 geocoding process that Dr. Ricchetti performed split
3 those roadblocks into two different areas. And now,
4 they're not representative of one roadblock either.
5 These are multiple roadblocks at this one location
6 that have been split, it appears to be, across two
7 different areas.
8   Let me look at point 18 real quick.
9   So in this case -- in this example point 18
10 falls out in census tract 301.07 as well as point 159.
11 But that doesn't necessarily mean that that's going to
12 be uniform across the entire dataset.
13   Q.   Did you use a particular methodology in
14 identifying this subset of geocoded data points that
15 were going to be the subject of your analysis?
16   A.   Pretty much randomly navigated to these
17 points. You know, I hate to use the word "randomly
18 chosen" because in science random is completely
19 different than this exercise. So, again, these points
20 were just randomly navigated to very quickly With
21 Deputy Thompson.
22   Q.   Right. But it wasn't random in like a
23 statistical sense of choosing a random sample, like a
24 statistically significant random sample dataset?
25   A.   Correct. You're correct. Yes. This was

Page 161

1   W. Funderburk
2 not a random subset of this data. However, you know,
3 given that all this -- the geocoding process was done
4 in a batch, as a batch process, there's no reason to
5 think or believe that these are isolated incidents
6 from the rest of the dataset.
7   Q.   But to actually determine that would require
8 additional analysis of additional data points?
9   MR. NOBILE: Objection, form.
10   A.   To determine what?
11   Q.   To determine whether there were
12 additional -- to determine whether additional -- there
13 were in fact additional errors, errors as defined by
14 the process you used, you would have to analyze
15 additional data points?
16   A.   Not necessarily. I don't need to analyze
17 additional data points, again, because these were all
18 done in one batch process. And, now, the number of
19 roadblocks that occur in these few exhibits is
20 approximately 12 percent of the total roadblocks in a
21 compiled unique roadblock dataset. So if we were to
22 sample it statistically, 10 percent of the population
23 data would be represented here. And by population, I
24 don't mean people. In stats there's a sample
25 population that you take to represent a target

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EXHIBIT 2

Page 162

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 1              W. Funderburk
 2  population.  And in this case 10 percent of the entire
 3  amount of roadblocks locations is, in my opinion, more
 4  than enough.  And we calculated 12 percent.
 5      Q.   You didn't conduct your own analysis?  You
 6  didn't geocode the data yourself using your own
 7  preferred methods in ArcGIS; is that right?
 8      A.   That is correct.  I did not geocode
 9  anything.  I simply displayed Dr. Ricchetti's data by
10  its X and Y attribute data via its coordinates,
11  latitudinal and longitudinal coordinates.
12      Q.   So you never attempted anything of that
13  nature with this data?
14      A.   Attempted to geocode it?  Is that the
15  question?
16      Q.   Correct.
17      A.   No, I did not geocode any of this data, no,
18  sir.
19          MR. RETHY:  Go off the record for a second.
20          (A RECESS WAS TAKEN FROM 3:15 P.M.
21           TO 3:27 P.M.)
22  BY MR. RETHY:
23      Q.    So the last paragraph of your report, on
24  page 17 on the bottom, whether you look at the bottom
25  or the top, it's 17.  The last sentence states:
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Page 163

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 1              W. Funderburk
 2  "Given that the geographic analyses are the premise to
 3  the statistical argument, the statistical analyses is
 4  invalid as well."
 5          When you are offering that opinion that the
 6  statistical analyses are invalid, are you offering
 7  that as an expert in statistical analysis?
 8      A.   No, sir, I'm not.  I've had enough
 9  mathematics and taken mathematical logic courses.
10  Given that the premise to any argument -- if the
11  premise to the argument is invalid, thus the argument
12  is invalid.  That's classical logic as well as
13  mathematical logic.  And you take that when you take
14  number theory course work.
15      Q.   But you didn't do any statistical analysis
16  that would confirm or refute Dr. Ricchetti's
17  statistical analysis?
18      A.   No, sir.  I wasn't paid to do any
19  statistical analysis here.  Again, that's just
20  classical mathematical logic.
21          MR. RETHY:  That's all I've got.
22              EXAMINATION
23  BY MR. NOBILE:
24      Q.   Okay.  Just a few followup questions.
25  Mr. Funderburk, can you go to Exhibit 12 of your
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Page 164

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 1              W. Funderburk
 2  report, which is the census block and census tract map
 3  for the whole county?
 4      A.   Yes.
 5      Q.   Earlier Mr. Rethy -- am I pronouncing that
 6  correctly?
 7          MR. RETHY:  Yes.
 8      Q.    -- Mr. Rethy asked you about one of your
 9  exhibits and you were discussing census tract 309.
10  (Indicating.)
11      A.   Correct.
12      Q.   And I think during the course of your
13  testimony you said something to the effect that maybe
14  census tract 309 is predominantly white.  Do you
15  recall that?
16      A.   I do.  And I may have misspoken on that.  I
17  think I was referring to specifically the exhibit.
18      Q.   Okay.  But if you testified earlier that
19  census tract 309 is predominantly white, if I told you
20  that -- if I reminded you that your census tract map
21  shows it's predominantly black, would you disagree
22  with the map that you have here?
23      A.   No, I would not.
24      Q.   There's been a lot of testimony about
25  roadblock and geocoding and the information contained
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Page 165

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 1              W. Funderburk
 2  in the CAD system; correct?
 3      A.   Correct.
 4      Q.   All right.  Now, you reviewed -- you
 5  reviewed the unique -- excuse me -- the compiled
 6  unique roadblocks attached to appendix D; correct?
 7      A.   Yes, sir; that's correct.
 8      Q.   Is it your opinion that, based on that
 9  information, anyone could have assigned those
10  locations reliably to census tracts?
11          MR. RETHY:  Object to form.
12      Q.   Based on the information provided in that
13  list?
14      A.   No.  Again, I reiterate that you cannot take
15  coarse location information such as intersection-level
16  data and accurately assign geocoded coordinates to it.
17      Q.   And you're basing that based on the
18  addresses listed in that list; correct?
19          MR. RETHY:  Object to the form.
20      A.   Correct.
21      Q.   You testified earlier -- there was some
22  testimony earlier regarding coordinate systems.  Do
23  you recall that?
24      A.   I do.
25      Q.   And do you recall Mr. Rethy asking you
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